

AMENDMENT CLAIMS

1. (CURRENTLY AMENDED) An antenna system with controlled directional pattern comprising:  
a flat substrate carrying at least two ~~fan-like oriented~~ directional planar antennas, each directional antenna comprising an active element and a reflector; and  
a commutation switch for controlling directional pattern of said antenna system, wherein said commutation switch ~~is made so as to provide for switching~~ switches on one or more of the at least two directional planar antennas either of the said antennas or switching on two or more said antennas simultaneously.
2. (CURRENTLY AMENDED) The antenna system of claim 1, wherein ~~in case the said antennas equipped with reflectors are used,~~ the said commutation switch is placed between the said antennas and wherein each of the directional antennas comprises an active element and a reflector fitted with a grounded case, with the side facets of the said commutation switch case being used as reflectors of the said antennas.
3. (CURRENTLY AMENDED) The antenna system of claim 1, wherein the said antennas are ~~made as~~ traveling-wave antennas, no fewer than three in number, located on the both-sides of the substrate, the orientation of the said antennas located on one side of the-said substrate being different from the orientation of the said antennas located on the-other side of the said substrate.
4. (CURRENTLY AMENDED) The antenna system of claim 1, ~~wherein it contains~~ further comprising an additional antenna comprised of an active element and a

reflector, both of them being placed along the line essentially perpendicular to the directional planar antennas ~~said~~ substrate .

5. (CURRENTLY AMENDED) The antenna system of claim 4, wherein the ~~said~~-commutation switch is placed behind the additional antenna and fitted with a grounded case, and the facet of the grounded case of the ~~said~~-commutation switch facing the active element of the ~~said~~ additional antenna is used as the ~~said~~ reflector of the ~~said~~ additional antenna.

6. (CURRENTLY AMENDED) The antenna system of claim 1, ~~wherein it contains~~ further comprising two additional antennas located on ~~different~~ opposite sides of the ~~said~~ substrate and oriented in opposite directions, comprised of an active element and a reflector, placed along the line essentially perpendicular to the directional planar antennas ~~substrate~~.

7. (CURRENTLY AMENDED) The antenna system of claim 6, wherein the ~~said~~ commutation switch is placed between the ~~said~~ additional antennas and fitted with a grounded case having a facet, and the facet of the ~~said~~ case of the commutation switch facing the ~~said~~ active element of the additional antenna is used as the ~~said~~ reflector of at least one of the ~~said~~ additional antennas.

8. (CURRENTLY AMENDED) A system as in ~~transceiving device~~ ~~incorporating the antenna system of any one~~ of claims ~~[[1-7]]~~ 1-2, further comprising  
a reception/transmission switch,  
a receiver,  
a transmitter, ~~the~~

a control unit for the ~~said~~ antenna system for controlling the operation of the ~~said~~ antenna system in omni-directional mode, directional scanning mode or stationary directional mode, and

a controller,

wherein the commutation switch of the ~~said~~ antenna system is connected to ~~the a~~ first input/output of the reception/transmission switch, whose output is connected to ~~the~~ an input of the receiver, and the second input connected to ~~the~~ an output of the transmitter, ~~the~~ an output of the receiver is connected to a ~~the~~ first input of the controller, ~~the~~ a first output of the controller is connected to the ~~said~~ control unit, whose output is connected to the ~~respective input of the said~~ commutation switch of ~~the antenna system~~, ~~the~~ a second output of the controller is connected to an ~~the~~ input of the transmitter, and ~~the~~ a third output of the controller is designed for connection with ~~the~~ a user's device ~~serving data reception and/or transmission~~.

9. (CURRENTLY AMENDED) The ~~transceiving device system~~ of claim 8, ~~wherein it additionally comprising incorporates~~ a signal quality evaluation unit and a signal identification unit, ~~at that, the~~ an output of the receiver is connected to ~~the~~ an input of the signal quality evaluation unit and ~~the~~ an input of the signal identification unit, ~~the~~ an output of the signal quality evaluation unit is connected to ~~the~~ a second input of the controller, and a ~~to the~~ third input of the controller which is connected to the an output of the signal identification unit ~~is connected~~.

10 – 15 CURRENTLY CANCELLED

16. (NEW) An antenna system comprising:  
a substrate having at least one surface;

a plurality of flat directional antennas formed on the at least one surface of the substrate; and

a commutation switch coupled to each of the plurality of flat antennas for controlling directional pattern of the antenna system.

17. (NEW) The system of claim 16 wherein each of the plurality of flat directional antennas comprises an active element and a reflector.

18. (NEW) The system of claim 17 wherein at least two of the plurality of flat directional antennas have a common reflector.

19. (NEW) The system of claim 16 further comprising at least one antenna not located on the at least one surface of the substrate.

20. (NEW) An antenna system comprising:  
a substrate;  
a plurality of directional planar antennas carried by the substrate; and  
a commutation switch for controlling the pattern of the antenna system,  
wherein said commutation switch switches on one or more of the plurality of directional planar.

21. (NEW) The system of claim 20 wherein at least one of the plurality of directional planar antennas is located within said substrate.

22. (NEW) The system of claim 20 wherein each of the plurality of directional planar antennas comprises an active element and a reflector.

23. (NEW) The system of claim 20 wherein at least two of the plurality of directional planar antennas have a common reflector.

24. (NEW) The system of claim 20 further comprising at least one antenna not located on a surface of the substrate.

25. (NEW) An antenna system with controlled directional pattern comprising:  
a flat substrate carrying at least two directional planar antennas, each directional antenna comprising an active element and a reflector;  
a commutation switch for selectively coupling to one or more of said at least two directional planar antennas;  
a reception/transmission switch in communication with the commutation switch;  
a receiver in communication with the reception switch; and  
a transmitter in communication with the reception switch.

26. (NEW) The system of claim 25 wherein the at least two directional planar antennas are located on a surface of said substrate.

27. (NEW) The system of claim 25 wherein the at least two directional planar antennas are located proximate the periphery of the substrate and the receiver and the transmitter are located in an interior region of the substrate.

28. (NEW) The system of claim 25 wherein at least one of the at least two directional planar antennas is located within said substrate.

29. (NEW) The system of claim 25 wherein each of the at least two directional planar antennas comprises an active element and a reflector.

30. (NEW) A method of controlling an antenna system having a substrate, a plurality of flat directional antennas carried by the substrate and a commutation switch coupled to each of the plurality of flat antennas for controlling directional pattern of the antenna system, the method comprising:

coupling a receiver to the commutation switch;

selectively coupling the commutation switch to one or more of the plurality of flat antennas to control the receive pattern of the antenna system;

coupling a transmitter to the commutation switch; and

selectively coupling the commutation switch to one or more of the plurality of flat antennas to control the transmit pattern of the antenna system.